

Supplementary heating system (Auxiliary heater or auxiliary coolant heater)

Introduction

This chapter contains information on the following subjects:

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The supplementary heating system is supplied with fuel from the vehicle fuel tank and can be used when the vehicle is in motion or stationary. Electrical power is supplied by the vehicle battery.

The **auxiliary heater** (air heater) runs in air circulation mode and heats the vehicle interior. It has separate vents in the passenger compartment → Fig. 219.

The **auxiliary coolant heater** heats the heating circuit. Heat is guided into the vehicle interior via the vents for the heating or air conditioning system. With the auxiliary coolant heater, it is possible to switch between heating and ventilating.

Additional information and warnings:

- Filling the tank → page 316
- Battery → page 336

DANGER

Swallowing batteries with a diameter of 20 mm or other lithium batteries can result in severe or even fatal injuries within a very short period of time.

- Always keep the vehicle key, key ring, batteries, spare batteries, round cells and other batteries that are larger than 20 mm out of the reach of children.

DANGER (Continued)

- Obtain medical assistance immediately if you even suspect that someone has swallowed a battery.

WARNING

The fumes from the supplementary heating system contain carbon monoxide, which is an odourless and colourless poisonous gas. Carbon monoxide can cause people to lose consciousness. It can also cause death.

- Never start or run the supplementary heating system in unventilated or closed rooms.
- Never program the supplementary heating system so that it is switched on and run in unventilated or enclosed areas.

WARNING

Parts of the supplementary heating system become very hot. This could cause a fire.

- Park the vehicle so that no part of the exhaust system can come into contact with any inflammable material underneath the vehicle, e.g. dry grass.

NOTICE

Do not place any food, medicine or any other heat-sensitive items in front of the air vents. Heat-sensitive food, medicine and other items could be either damaged or rendered useless.



After starting the engine with a discharged vehicle battery, or after the battery has been changed, system settings (time, date, personal convenience settings and programming) may have been changed or deleted. Check and correct the settings as necessary once the vehicle battery has been sufficiently charged.

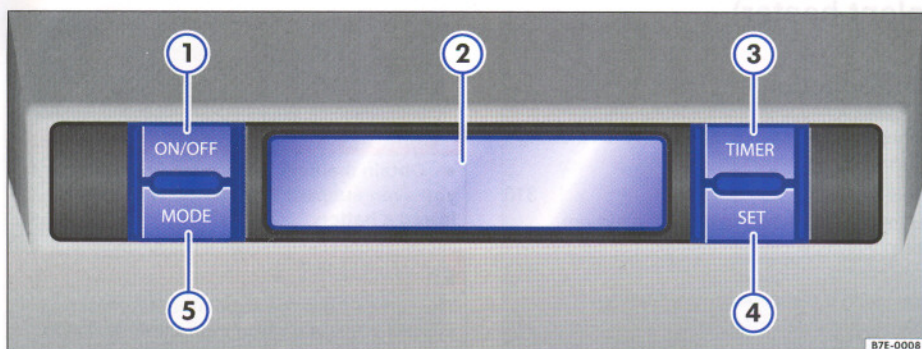


Fig. 218 In the headliner: controls of the supplementary heating system.

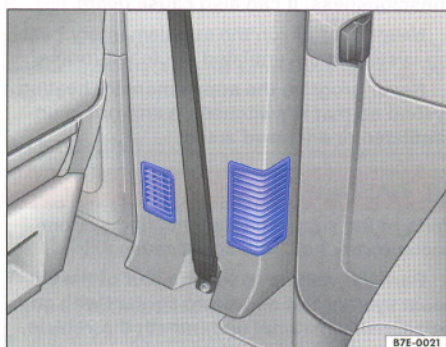



Fig. 219 Auxiliary heater vent in the passenger compartment



First read and observe the introductory information and safety warnings  on page 309.

Each button has its own assigned function (lettering) as well as a function for the menu (symbol in the display next to the button)

⇒ Fig. 218 Function

① ON/OFF	Switching the supplementary heating system on and off Menu function buttons: ▲ Setting within a menu
② Display	Multifunction display 1-3 ☹: displaying the program start times ∞ ☹: continuous mode (only auxiliary heater) ☹☹☹: heating mode (auxiliary heater and auxiliary coolant heater) ☹☹☹☹☹: ventilation (only auxiliary coolant heater)
③ TIMER	Displaying and setting the start time Menu function buttons: ↵ closing the menu
④ SET	Ⓜ Activating the childproof lock Calling up the menu ⇒ page 314. Menu function button: OK Confirming settings.
⑤ MODE	Auxiliary heater: Adjusting the temperature. Auxiliary coolant heater: Switching between heating mode and ventilation mode. Menu function button: ▼ setting within a menu.

Switching the supplementary heating system on and off



First read and observe the introductory information and safety warnings on page 309.

Switching on the supplementary heating system:

ON/OFF

Manually with button in the roof display.

ON and

Manually with the remote control.

Automatically with a program and activated switch-on time.

Switching off the supplementary heating system:

ON/OFF

Manually with the function button \Rightarrow Fig. 218 in the roof display.

OFF

Manually with the remote control.

Automatically after the set operating duration has elapsed.

Only if the vehicle has an auxiliary coolant heater Automatically when the indicator lamp lights up (fuel gauge) \Rightarrow page 316.

Automatically if the charge level of the additional battery is too low \Rightarrow page 336.

Setting the operating duration (when the ignition is switched off)

The default setting for the operating duration is 30 minutes. You can set the operating duration between 10 and 120 minutes.

- Press any button on the roof display to activate the roof display.
- **Only if the vehicle has an auxiliary coolant heater:** Press the button to set the operating mode.

- Press the button.
- Press button to adjust the operating duration.
- Press the function button or until the required operating duration is displayed.
- Press button again to confirm the operating duration.
- **Only if the vehicle has an auxiliary heater:** Press the function button or as often as necessary until the desired temperature level is displayed.

The supplementary heating system has been switched on. The operating duration is counted backwards. Press button to switch off the supplementary heating system prematurely.

Continuous mode ∞ (only for auxiliary heater, with the ignition switched off)

Press any button on the roof display to activate the roof display.

Press the button.

Press the button.

Press the function button or as often as necessary until **Heating** ∞ is displayed.

Press button to confirm the setting.

Press the function button or as often as necessary until the required temperature level is displayed.

Press button again to confirm the temperature.

Things to note

The supplementary heating system runs on for a short time after it is switched off in order to cool the heating unit (switch-off delay). The exhaust gases in the system can also be emitted.

Switch-off delay for the auxiliary heater

If the ignition is switched off while the auxiliary water heater is on, the selected function continues being performed for a maximum of 10 minutes. The set switch-off delay is shown on the display.

Each time button is pressed, the switch-off delay is reduced by one minute.

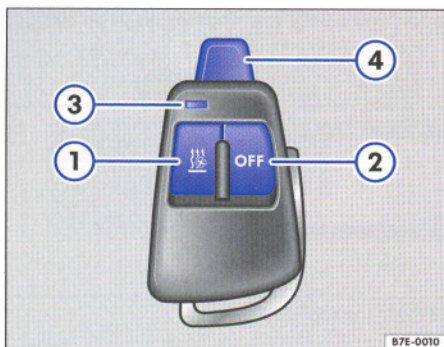


Fig. 220 Auxiliary heater: remote control

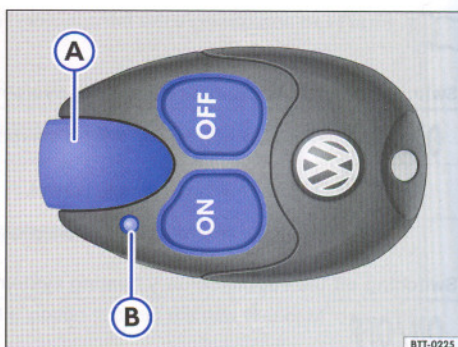


Fig. 221 Auxiliary coolant heater: radio wave remote control

First read and observe the introductory information and safety warnings on page 309.

⇒ Fig. 22
0 and
Fig. 221

Meaning

and	Switching on the supplementary heating system.
or	Switching off the supplementary heating system.
or	Aerial.
or	Indicator lamp.

Pressing the button in the remote control can switch on the supplementary heating system unintentionally.

Indicator lamp in the remote control (auxiliary heater)


The indicator lamp in the remote control provides the user with different feedback information after a button has been pressed:

Battery indicator lamp ⇒ Fig. 220	Meaning
Flashes green for approximately 30 seconds	The supplementary heater has been switched on with .
Flashes red for approximately 30 seconds	The auxiliary heater has been switched off with .
Flashes red for approximately 10 seconds (four times per second)	Remote control is out of range
Flashes red for approximately 10 seconds (ten times per second)	System fault
Not flashing, lamps not lit up.	The battery in the remote control has used up its charge.

Indicator lamp in the remote control (auxiliary coolant heater)

The indicator lamp in the remote control provides the user with different feedback information after a button has been pressed:











Battery indicator lamp Fig. 221	Meaning
Lights up green for approximately 2 seconds.	The supplementary heater has been switched on with .
Lights up red for approximately 2 seconds.	The auxiliary heater has been switched off with .

Battery indicator lamp Fig. 221 	Meaning
Flashes green or red for approximately 2 seconds	The switch on/off signal has not been received ^{a)} .
Lights up orange for approximately 2 seconds, then turns green/red.	The battery in the remote control is weak. The switch on/off signal has however been received.
Lights up orange for approximately 2 seconds, then turns green/red.	The battery in the remote control is weak. The switch on/off signal has not been received.
Flashes orange for approximately 5 seconds.	The battery in the remote control is empty. The switch on/off signal has not been received ^{a)} .

^{a)} If you are at the edge of the receiving range, the remote control may not be able to receive the confirmation signal from the sensor in the vehicle. If this is the case, the remote control will show a fault even though the supplementary heating system has actually been switched on or off. Move closer to the vehicle and try pressing the corresponding button in the remote control again.

Settings for remote control


The supplementary heating system is activated or deactivated by means of the remote control. The Start Time menu can be used to program the operating duration and the temperature level (auxiliary heater) or the operating mode (auxiliary coolant heating).

- Press any button on the roof display to activate the roof display.
- Press and hold down the  button.
- Press the function button  or  as often as necessary until "REMOTE CONT." is displayed.
- Press button  to confirm.
- Press the function button  or  until the required temperature or mode is displayed.
- Press button  to confirm the selected temperature or mode. The operating duration menu is displayed.
- Press the function button  or  until the required operating duration is displayed.
- Press button  to confirm the operating duration. A summary of the settings is displayed.

Replacing the battery for the remote control



Auxiliary heater: the battery is located on the rear side of the remote control underneath a cover. Pull the cover back.

Auxiliary coolant heater: the battery is located on the rear side of the remote control underneath a cover. Use a flat object, e.g. a coin, to turn the slot anti-clockwise in order to open the cover.

When changing the batteries, ensure you insert them the right way (poles) and that they are the same type ⇒ .

Range

The receiver is in the vehicle interior. The remote control key has a range of several hundred metres when the battery is fully charged. The range of the remote control key can be considerably reduced by obstacles between the remote control key and the vehicle, bad weather conditions, and a flat battery.

The optimum range is achieved if the remote control is held vertically with the aerial  or ⇒ Fig. 220  pointing upwards. Do not hold the aerial with your fingers or the palm of your hand.

The distance between the remote control and the vehicle must be *at least 2 metres*.


NOTICE

- **The remote control contains electronic components. Protect the remote control against moisture, excessive vibration and direct sunlight.**
- **Unsuitable batteries can damage the remote control. Replace a discharged battery only with a new battery of the same voltage rating, size and specification.**




The battery in the remote control may contain perchlorate. Please comply with legislation regarding disposal.



Protect the remote control against inadvertent operation in order to prevent the auxiliary heater from being switched on unintentionally. 



First read and observe the introductory information and safety warnings  on page 309.

Setting the date

Before being used for the first time and if the vehicle battery has been disconnected and reconnected, the date needs to be set.

- Press any button on the roof display to activate the roof display.
- Press button **SET** until the date is displayed.
- Press button **SET** again. The day flashes.
- Press the function button **▲** or **▼** until the required day is displayed.
- Press button **SET** again to confirm the day. The month flashes.
- Proceed in the same way for the month and the year.

Time

The time is automatically taken from the instrument cluster.

Setting the start time

You can program up to three different start times. Only **one** of these can be activated at a time.

The following steps must be carried out in less than 10 seconds as the procedure will otherwise be stopped.

- Press any button on the roof display to activate the roof display.
- Press button **TIMER** until **OFF** is displayed.
- Press the **SET** button, press function button **▲** or **▼** as often as necessary until **ON** is displayed.
- Press button **SET** to confirm.
- Press the function button **▲** or **▼** until the required temperature or mode is displayed.
- Press button **SET** to confirm.
- Press the function button **▲** or **▼** as often as necessary until the start time to be switched on or off is displayed.

- Press the function button **▲** or **▼** until the required day of week is displayed. If a day is not displayed, no day has been programmed, only a time. The supplementary heating system will then be switched on at this programmed time.
- Press button **SET** to confirm the selected day of the week. The hour menu is displayed.
- Proceed in the same way for the hour, for minutes as well as the operating duration.
- Press button **SET** to confirm the settings. A summary of the settings is displayed.

The start time for which the changes have been made has been activated. To activate additional start times, press and hold down button **TIMER** for several seconds, select the start time with the function buttons **▲** or **▼** and then proceed as described above.

Deactivating the start time

If changes have been made for a start time, the start time remains activated. To deactivate the start time, proceed as follows:

- Press any button on the roof display to activate the roof display.
- Push and hold down the **TIMER** button for several seconds, then press the **SET** button until an active start time that is to be deactivated is displayed.
- Press the function button **▲** or **▼** as often as necessary until **OFF** is displayed.
- Press button **SET** to confirm.

The start time has now been deactivated and is no longer shown on the roof display.



WARNING

Never program the supplementary heating system so that it is switched on and run in unventilated or enclosed areas. The fumes from the supplementary heating system contain carbon monoxide, which is an odourless and colourless poisonous gas. Carbon monoxide can cause people to lose consciousness. It can also cause death.





Switching the childproof lock on and off





Fig. 222 On the roof display: symbol for switched-on childproof lock.

 First read and observe the introductory information and safety warnings  on page 309.

Activating the childproof lock


- Press any button on the roof display to activate the roof display.
- Press and hold down the  button for several seconds.
- Press the function button  or  until **CHILD-PROOF LOCK** is displayed.
- Press the  button.





Notes on operation

 First read and observe the introductory information and safety warnings  on page 309.








The supplementary heating exhaust system, located under the vehicle, must not be blocked by snow, mud or other items. The exhaust fumes must be able to escape without being obstructed. The emissions generated by the supplementary heating system are removed via an exhaust pipe fitted underneath the vehicle.

If the charge level of the additional battery is low, the supplementary heating system will switch off automatically or cannot be switched on.


 Operating noises can be heard if the supplementary heating system is switched on.


- Press the function button  until **ON** is displayed, in order to switch childproof lock on. The display will show this symbol   Fig. 222.
- Press button  to confirm.


Deactivating the childproof lock

- Switch on the ignition.
- Press and hold down the  button for several seconds.
- Press the function button  or  until **CHILD-PROOF LOCK** is displayed.
- Press the  button.
- Press the function button  until **OFF** is displayed, in order to switch childproof lock off.
- Press button  to confirm. The  symbol on the display goes out.

If the childproof lock has been switched on and the ignition has been switched off, it is **not** possible to switch the supplementary heating system on manually.

It is still possible to switch off the supplementary heating system manually. 

 At high levels of humidity and low temperatures outside the vehicle, it is possible that condensation from the heating system will evaporate through the exhaust system when the heating system is operating. If this is the case, steam may appear underneath the vehicle. The vehicle is not damaged.

 The charge of the additional battery will be reduced if the supplementary water heater is operated several times over an extended period of time. Drive the vehicle for a sufficient length of time in order to recharge the additional battery. As a rule of thumb, drive the vehicle for the length of time you ran the system. 